



Xerox Creates a Knowledge-Sharing Culture Through Grassroots Efforts

BY VICKI J. POWERS

Xerox Corporation established its identity in the late 1980s as “The Document Company.” By following this business strategy, it’s not surprising the organization became involved in knowledge management right from the start. Dan Holtshouse, director, Corporate Strategy, says the organization had a hunch—by looking at the growing knowledge management movement in 1995—that knowledge management would be a natural extension of document management. By acting on this hunch, Xerox developed a knowledge management initiative that impacts the organization’s business strategy and improves its customer service and financial performance.

“If knowledge management was going to prove valid and powerful, we wanted to be an early and effective market leader,” Holtshouse remarks.

A CRITICAL BEGINNING

Before Xerox could commit to knowledge management, Holtshouse says, the organization needed to understand its customers’ and the marketplace’s knowledge interest. To determine this, Xerox took an across-the-board look at the subject—the underlying interests, drivers, and implications to the company.

Xerox interviewed 60 knowledge workers outside the organization to research the productivity of knowledge work. Holtshouse realized that organizations use and equate knowledge management in a number of ways, depending on their culture. Yet almost every organization, he found, uses knowledge management for knowledge sharing or the transfer of best practices.

Based on significant research and study participation with Ernst & Young, the American Productivity & Quality Center, and Boston University, Xerox built a library of case studies describing the knowledge activities of other organizations. Holtshouse analyzed the activities that organizations associate with knowledge management and divided them into 10 distinct areas—or 10 domains of knowledge management. These domains are:

- *sharing knowledge and best practices;*
- *instilling responsibility for knowledge sharing;*
- *capturing and reusing past experiences;*
- *embedding knowledge in products, services, and processes;*
- *producing knowledge as a product;*
- *driving knowledge generation for innovation;*
- *mapping networks of experts;*
- *building and mining customer knowledge bases;*
- *understanding and measuring the value of knowledge; and*
- *leveraging intellectual assets.*

Holtshouse says the 10 domains were useful in helping Xerox employees quickly understand “this thing” called knowledge management. He believes it was fundamental to getting alignment in thinking on what constitutes this often-confusing term.

“Over time, I found that to get a shared vision of the importance of knowledge management, you had to address what the three or four conflicting ideas might be around knowledge management inside a company,” Holtshouse relates. “We had to develop explicit contrasts on how knowledge management is different from infor-

mation management or how a team or work group is different from a community. By building those representations, we were able to help shape the shared thinking of what knowledge management is.”

Holtshouse admits it was a reasonable amount of work to synthesize the main knowledge management activities at the different organizations. Some organizations had two or three initiatives under way in knowledge management while other organizations had a total focus around one area. Chevron, for example, focuses mainly on sharing best practices.

“I would say Xerox has activities in most of the domains,” Holtshouse says. “I have a map of internal projects, and we’re active in seven of the 10. We have activities in the other three, but they don’t have the visibility of the ones that fall in the seven. We believe these domains represent the framework of the knowledge-driven organization of the future. We believe that most companies that want to consider themselves knowledge-based or a knowledge company will need to master all 10.”

SUPPORT FOR KNOWLEDGE

As part of its knowledge work study, Xerox recruited 100 knowledge managers in 1997 who were directly involved in leading knowledge initiatives in the United States and Europe. This panel of experts—who were challenging to find at that time—agreed to be surveyed each year regarding their knowledge management

initiatives and developing trends. The main benefit of the knowledge panel, explains Holtshouse, is that the membership represents the bigger part of the movement.

“The people who are written about for best practices or those who win awards are the leading-edge companies,” Holtshouse says. “But what about the companies that are not on the leading edge? We think they are a couple of years behind. The knowledge panel is helping us get a feel for where the bigger part of the group is. These people are the ones trying to develop the systems, but they might not have the top management support yet.”

Xerox, fortunately, has had that support from the beginning. Its chairman, Paul Allaire, officially kicked off the organization’s knowledge management initiative in 1996. In this same year Xerox began a major, long-range planning effort dubbed Xerox 2005. This process helped the company examine its future—where technology was going, where customers were going, and what geographies were changing—and make midcourse corrections when necessary. Holtshouse’s knowledge management study conducted in 1996 served as input to this long-range planning effort.

XEROX’S KNOWLEDGE IN ACTION

Holtshouse says Xerox has consciously set out to be as educated as possible about knowledge management. The organization has spent considerable resources and time to understand the collective knowledge around the subject through its firsthand research, consortium work, and sponsorship of research.

Xerox boasts many examples of how knowledge sharing has worked within the organization. It developed a number of grassroots initiatives to help solve specific problems. Xerox also created several corporate initiatives that combine what the organization is doing and what it is learning within its own walls.

EUREKA

Eureka is a grassroots effort that started from a business necessity to share intellectual capital. This knowledge base allows Xerox’s service organization to

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create and reuse intellectual capital among its 25,000 reps worldwide.

Xerox service technicians make approximately 1 million service calls per month to maintain copiers, printers, and networks. During these repairs, employees sometimes discovered problems they had not seen in documentation. It might relate to a new part, a vendor problem, or an out-of-date service manual. These problems could create a lengthy downtime for customers. At the same time, Xerox would lose money as service reps worked to solve a challenging problem.

"Eureka was developed so once somebody spends a lot of time developing this expensive answer, it gets shared, and other employees don't have to repeat it," Holtshouse states. "Customers get better service because when it occurs again, someone else doesn't have to spend that much time on it. It's also a significant cost reduction opportunity and encourages high involvement in the service organization as reps create the knowledge base and use it."

Eureka, Holtshouse explains, is self-sustaining. Service reps, rather than outside reporters or writers, contribute their innovative solutions to the knowledge base on their own time. Currently, the knowledge-sharing system has more than 25,000 records. To access this knowledge-sharing environment, reps use their laptops and enter the specific problem that needs to be fixed at the client's site and receive suggested solutions submitted by other Xerox employees. Before Eureka, service reps shared their innovative solutions in work group meetings, but the sharing was limited to only a few people at a time.

"The voluntary submission of those shared tips, we think, is due primarily to the service reps getting personal recognition for their contributions, because their name goes with the tip throughout the life of the system," Holtshouse reports.

In addition to developing intellectual capital, Eureka contributes to the social capital because employees are beginning to know each other beyond their immediate work groups. Service reps within a geographic area

generally work in teams of eight to 10 employees and communicate by radio phone and e-mail. Eureka has allowed service reps to become part of a worldwide global community. A solution developed in Toronto, for example, was used by someone in South America. Holtshouse says the employee e-mailed across the globe to the other employee that his solution was terrific: "You saved me from replacing a \$40,000 machine by simply replacing this 90-cent connector. I would never have figured that out."

Xerox currently saves between 5 percent and 10 percent on labor and parts costs from the success of its Eureka project. With a 25,000-person labor organization, Holtshouse says, that's a lot of money. Plus,

XEROX • LESSONS LEARNED

- Contrast for employees the difference between knowledge management and the way they used to work.
- Don't take for granted that everyone understands what you're trying to build or accomplish. "Try to come at it in a number of ways so people understand the perspective that you're talking about," Holtshouse notes.
- Support from the top is vital in a change initiative, and knowledge management is all about change.
- Getting people to want to participate in knowledge management is easy; getting them to do it right takes more effort. "We had a lot of people wanting to join in with knowledge management but not do anything differently, so they would rename what they were doing 'knowledge this and knowledge that,'" Holtshouse says. "That required another iteration of communications through a knowledge newsletter and a better Web site to help align collective thinking across the organization."

employees are naturally working hard to reduce costs to support customers anyway. Altogether, the savings total tens of millions of dollars, Holtshouse reports.

A number of groups within Xerox are interested in the experience that Eureka has created in the service community and want to apply that methodology and process to other communities in the organization. The help desk, for example, is using the knowledge base for call center support. But while Xerox has been talking with a few customers outside the organization that might benefit from a Eureka-like system in their service organizations, Eureka is only an internal Xerox solution at this point.

DOCUSHARE

Xerox's research lab community developed its own Web-based tool to share progress with other scientists working on the same project. These scientists need little structure and wanted to be able to self-maintain and self-organize their workspaces. Holtshouse says Xerox was cautious about just putting some technology in place, because it wouldn't get used unless it matched the motivations of the community. The resulting tool, first called AmberWeb and now DocuShare, allows scientists to collaborate among themselves. It has also moved outside the science arena, where scientists are working with engineers and product designers share with business planners and marketers. The community using DocuShare has grown from 500 research engineers to 30,000 employees inside Xerox.

"The interesting part about Eureka and DocuShare is that we sent a team of scientists to work beside the employees to understand what would motivate them to use these tools," Holtshouse explains. "They brought with them a lot of behavioral science, anthropological eyeglasses to understand how the employees work. If you are careful in addressing the cultural work practice of a community, that will ensure a higher success rate in developing the right knowledge solution."

EVOLVING CHALLENGES

The challenge of establishing a knowledge management effort at Xerox has changed over time, according to Holtshouse. He explains the first year involved putting aside the concern that the effort might be a waste of time, because no one knew how important knowledge management was going to be.

"It was like a lot of things that are new—you just don't know," Holtshouse relates. "Even though you have support from the top, you have to work through a lot of barriers from employees who don't have the same perspective around this new thing called knowledge management."

Later the challenge transitioned to building a community and pulling together community sharing around knowledge management with the working champions inside the company. It also meant working with other Xerox businesses and research labs to receive a commitment to focus on this. Holtshouse says competing themes or business opportunities always exist, so focusing on knowledge management meant taking time and resources away from other priorities.

THE FUTURE OF KNOWLEDGE SHARING AT XEROX

Eureka and DocuShare represent large community knowledge-sharing initiatives of 25,000 or more employees. The next goal for Xerox is to encourage knowledge sharing among all 90,000 employees as part of their everyday work. To keep the knowledge momentum building across the entire Xerox community, a new cultural dimension is being launched in 2000 around knowledge sharing so that it becomes part of everyone's daily activities, whether or not they have direct involvement with a special initiative such as Eureka or DocuShare. ●